

# PATENT COOPERATION TREATY

From the  
INTERNATIONAL SEARCHING AUTHORITY

|             |     |
|-------------|-----|
| RECEIVED    |     |
| 29 SEP 2004 |     |
| WIPO        | PCT |

To:

see form PCT/ISA/220

PCT

## WRITTEN OPINION OF THE INTERNATIONAL SEARCHING AUTHORITY (PCT Rule 43bis.1)

|   |  |  |
|---|--|--|
| Date of mailing<br>(day/month/year) see form PCT/ISA/210 (second sheet)                         |  |  |
| Applicant's or agent's file reference<br>see form PCT/ISA/220                                   | <b>FOR FURTHER ACTION</b><br>See paragraph 2 below       |  |
| International application No.<br>PCT/US2004/010829  | International filing date (day/month/year)<br>08.04.2004 | Priority date (day/month/year)<br>08.04.2003 |
| International Patent Classification (IPC) or both national classification and IPC<br>C07D495/04 |  |  |
| Applicant<br>FLEXITRAL, INC.  |  |  |

1. This opinion contains indications relating to the following items:

- Box No. I Basis of the opinion
- Box No. II Priority
- Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability
- Box No. IV Lack of unity of Invention
- Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement
- Box No. VI Certain documents cited
- Box No. VII Certain defects in the international application
- Box No. VIII Certain observations on the international application

2. **FURTHER ACTION**

If a demand for international preliminary examination is made, this opinion will usually be considered to be a written opinion of the International Preliminary Examining Authority ("IPEA"). However, this does not apply where the applicant chooses an Authority other than this one to be the IPEA and the chosen IPEA has notified the International Bureau under Rule 66.1bis(b) that written opinions of this International Searching Authority will not be so considered.

If this opinion is, as provided above, considered to be a written opinion of the IPEA, the applicant is invited to submit to the IPEA a written reply together, where appropriate, with amendments, before the expiration of three months from the date of mailing of Form PCT/ISA/220 or before the expiration of 22 months from the priority date, whichever expires later.

For further options, see Form PCT/ISA/220.

3. For further details, see notes to Form PCT/ISA/220.

|  |  |
|--|--|
| Name and mailing address of the ISA:<br><br><br>European Patent Office<br>D-80298 Munich<br>Tel. +49 89 2399 - 0 Tx: 523656 epmu d<br>Fax: +49 89 2399 - 4465 | Authorized Officer<br><br>Fritz, M<br>Telephone No. +49 89 2399-2792 |
|--|--|



**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2004/010829

**Box No. I Basis of the opinion**

1. With regard to the language, this opinion has been established on the basis of the international application in the language in which it was filed, unless otherwise indicated under this item.
  - This opinion has been established on the basis of a translation from the original language into the following language , which is the language of a translation furnished for the purposes of international search (under Rules 12.3 and 23.1(b)).
2. With regard to any nucleotide and/or amino acid sequence disclosed in the international application and necessary to the claimed invention, this opinion has been established on the basis of:
  - a. type of material:
    - a sequence listing
    - table(s) related to the sequence listing
  - b. format of material:
    - in written format
    - in computer readable form
  - c. time of filing/furnishing:
    - contained in the international application as filed.
    - filed together with the international application in computer readable form.
    - furnished subsequently to this Authority for the purposes of search.
3.  In addition, in the case that more than one version or copy of a sequence listing and/or table relating thereto has been filed or furnished, the required statements that the information in the subsequent or additional copies is identical to that in the application as filed or does not go beyond the application as filed, as appropriate, were furnished.
4. Additional comments:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2004/010829

**Box No. II Priority**

1.  The following document has not been furnished:

- copy of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(a)).  
 translation of the earlier application whose priority has been claimed (Rule 43bis.1 and 66.7(b)).

Consequently it has not been possible to consider the validity of the priority claim. This opinion has nevertheless been established on the assumption that the relevant date is the claimed priority date.

2.  This opinion has been established as if no priority had been claimed due to the fact that the priority claim has been found invalid (Rules 43bis.1 and 64.1). Thus for the purposes of this opinion, the international filing date indicated above is considered to be the relevant date.

3. Additional observations, if necessary:

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2004/010829

**Box No. III Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

The questions whether the claimed invention appears to be novel, to involve an inventive step (to be non obvious), or to be industrially applicable have not been examined in respect of:

- the entire international application,  
 claims Nos. 1-20

because:

- the said international application, or the said claims Nos. relate to the following subject matter which does not require an international preliminary examination (specify):  
 the description, claims or drawings (*indicate particular elements below*) or said claims Nos. are so unclear that no meaningful opinion could be formed (specify):  
 the claims, or said claims Nos. are so inadequately supported by the description that no meaningful opinion could be formed.  
 no international search report has been established for the whole application or for said claims Nos. 1-20  
 the nucleotide and/or amino acid sequence listing does not comply with the standard provided for in Annex C of the Administrative Instructions in that:

- the written form                    has not been furnished  
    does not comply with the standard  
the computer readable form       has not been furnished  
    does not comply with the standard

- the tables related to the nucleotide and/or amino acid sequence listing, if in computer readable form only, do not comply with the technical requirements provided for in Annex C-bis of the Administrative Instructions.  
 See separate sheet for further details

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING AUTHORITY**

International application No.  
PCT/US2004/010829

---

**Box No. V Reasoned statement under Rule 43bis.1(a)(i) with regard to novelty, inventive step or  
industrial applicability; citations and explanations supporting such statement**

---

**1. Statement**

|                               |      |        |       |
|-------------------------------|------|--------|-------|
| Novelty (N)                   | Yes: | Claims | 27-28 |
|                               | No:  | Claims | 21-26 |
| Inventive step (IS)           | Yes: | Claims | 27-28 |
|                               | No:  | Claims | 21-26 |
| Industrial applicability (IA) | Yes: | Claims | 21-28 |
|                               | No:  | Claims |       |

**2. Citations and explanations**

**see separate sheet**

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/US2004/010829

**Re Item III**

**Non-establishment of opinion with regard to novelty, inventive step and industrial applicability**

It is noted that an International Preliminary Examination is not carried out on of the subject-matter of claims 1-20 which were not searched (cf. Rule 66.1 e) PCT).

**Re Item V**

**Reasoned statement under Rule 66.2(a)(ii) with regard to novelty, inventive step or industrial applicability; citations and explanations supporting such statement**

D1: Mustafa et al., Tetrahedron 21 (1965), 849-859

D2: Buggle et al., Monatshefte für Chemie 119 (1988), 945-951

The present application relates to unspecified aromachemicals, compositions, deodorants, detergents, bleach compositions and beverages comprising them (claims 1-18), a method to improve, enhance or modify the odor of a perfuming composition involving a derivative as of claims 1-4 (claims 19-20) as well as perfuming compositions, perfumed articles or body deodorants comprising benzo[4,5]thieno[3,2-b]pyran-2-one (claims 21-28).

As claims 1-20 were not searched (Rule 66.1 e) PCT); cf. also International Search Report, sheet C) the novelty thereof and the eventual presence of an inventive step therein will not be discussed.

The compounds IV disclosed on p. 851 of D1 are derivatives of benzo[4,5]thieno[3,2-b]pyran-2-one,

The compound benzo[4,5]thieno[3,2-b]pyran-2-one is identical with compound 1c disclosed in D2.

Neither D1 nor D2 relate to the possible use of benzo[4,5]thieno[3,2-b]pyran-2-one as a perfume.

As the term "composition" also includes the compound itself and the prefix "perfuming" cannot be understood as a technical feature, the subject-matter of claims 21-26 is an-

**WRITTEN OPINION OF THE  
INTERNATIONAL SEARCHING  
AUTHORITY (SEPARATE SHEET)**

International application No.

PCT/US2004/010829

ticipated by D2 (Art. 33(2) PCT)..

In contrast thereto a body deodorant or antiperspirant comprising benzo[4,5]thieno[3,2-b]pyran-2-one has not been described in the art.

The subject-matter of claims 27-28 is therefore novel (Art. 33(2) PCT) and also inventive in the sense of Article 33(3) PCT, since the use of benzo[4,5]thieno[3,2-b]pyran-2-one as an aromachemical is nowhere suggested.